

REMARKS

The Examiner objected to the drawings. Figure 11 has been modified to correct the error regarding character "7". The specification has been modified to clarify the objection related to character "40B".

The specification has been modified to address the Examiner's objection due to minor informalities.

The Examiner objected to claims 2, 4, 8, 12, and 13 due to some informalities. Claims 2, 4, 8, 12, and 13 have been modified to clarify the invention.

The Examiner rejected claims 1-20 under 35 U.S.C. §102(b) as allegedly being anticipated by Austin et al. (US 5,200,631).

Applicants respectfully traverse the §102 rejection with the following arguments.

35 U.S.C. §102

The Examiner rejected claims 1-20 under 35 U.S.C. §102(b) as allegedly being anticipated by Austin et al. (US 5,200,631).

Applicants respectfully contend that Austin does not anticipate claim 1, because Austin does not teach each and every feature of claim 1, as amended. For example, Austin does not teach “said optical transmission network comprising a plurality of optical fibers”, as in amended claim 1. To the contrary, as the “Summary of the Invention” section in Austin succinctly states, only an exact opposite configuration of communication is disclosed in Austin. “It is an object of the present invention to communicate with light between nearby components **without optical fiber or waveguide**”(emphasis added)(Col. 2, lines 35-37). In fact, Austin uses “free space”, including gaseous media such as air, to optically communicate (See Col. 2, lines 10-14). The embodiments disclosed in Austin require precise alignment of the substrates, because this transmission medium is air and not optical fiber (see e.g., Figs. 2A, 2B, 3-6). Further, while the embodiments shown in Figures 3 and 8 show light transmission through a substrate, there is no teaching, or suggestion, of the use of optical fiber as the transmission medium. It is not taught in Austin, nor is it obvious in view of Austin, to provide any type of optical transmission network via optical fibers. Based on the preceding arguments, Applicants respectfully maintain that Austin does not anticipate claim 1, and that claim 1 is in condition for allowance. Since claims 2-11 and new added claims 21-22 depend from claim 1, Applicants contend that claims 2-11 and 21-22 are likewise in condition for allowance.

Applicants respectfully contend that Austin does not anticipate claim 12, because Austin does not teach each and every feature of claim 12. For example, Austin does not teach or suggest, “said plurality of optical paths comprising a plurality of optical fibers”, as in claim 12, as amended. To the contrary, as discussed above regarding claim 1, Austin only teaches communication in free space, and never through an optical fiber. Based on the preceding

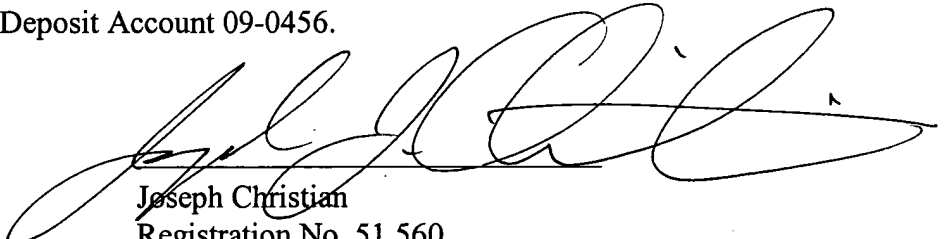
arguments, Applicants respectfully maintain that Austin does not anticipate claim 12, and that claim 12 is in condition for allowance. Since claims 13-17 depend from claim 12, Applicants contend that claims 13-17 are likewise in condition for allowance.

Applicants respectfully contend that Austin does not anticipate claim 18, because Austin does not teach each and every feature of claim 18. For example, Austin does not teach or suggest “further wherein said optical transmission network is wholly contained within a single chip of said integrated circuit”, as in claim 18, as amended. To the contrary, all of the communication in Austin is *extra-chip* (An optoelectronic package with direct free space optical communication between pairs of optical transmitters and receivers located on different substrate surfaces in a closely spaced **stack of chip carrying substrate** is disclosed)(emphasis added)(Abstract). “Transmitters 13 convert the electrical signals from the processor and memory chips 23 on the respective surfaces of the substrates 12 to optical signals which are transmitted to receivers 15 located on other substrate surfaces within the stack 11.”(Col. 4, lines 57-61). Finally, as the preambles in Austin’s independent claims 1 and 15, for example indicate, the optical communication of Austin is between substrates and not within a single chip. Based on the preceding arguments, Applicants respectfully maintain that Austin does not anticipate claim 18, and that claim 18 is in condition for allowance. Since claims 19-20 and new claim 23 depend from claim 18, Applicants contend that claims 19-20 and 23 are likewise in condition for allowance.

CONCLUSION

Based on the preceding arguments, Applicants respectfully believe that all pending claims and the entire application meet the acceptance criteria for allowance and therefore request favorable action. If the Examiner believes that anything further would be helpful to place the application in better condition for allowance, Applicants invites the Examiner to contact Applicants' representative at the telephone number listed below. The Director is hereby authorized to charge and/or credit Deposit Account 09-0456.

Date: 1/3/05



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In the Drawings:

Please replace the sheet containing FIG 11 of the drawings with the replacement sheet included herewith that includes an amended FIG. 11.